

SHERIDAN ROAD BRIDGE
Sheridan Road over the Flint River
Taymouth Township
Saginaw County
Michigan

HAER No. MI-39

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
Northeast Field Area
Chesapeake/Allegheny System Support Office
National Park Service
U.S. Custom House
Philadelphia, PA 19106

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HISTORIC AMERICAN ENGINEERING RECORD

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Location: This bridge is located in Saginaw vicinity, MI. It spans the Flint River on Sheridan Road one mile east of state highway M-13; and 8 miles south of state highway M-46 in the City of Saginaw. The structure is in Section 6 of Taymouth Township, of Saginaw County, Michigan at Town 10 North, Range 5 East of Michigan.

UTM: 17.261900.479800

Quad: Bridgeport, Michigan AMS 4270 IV SW - Series V862

Date of

Construction: 1923 by Brookville Bridge Company

Present Owner:

Saginaw County Road Commission
3020 Sheridan Road
Saginaw, MI 48601

Present Use:

Vehicular bridge.

Significance:

The Sheridan Road Bridge is significant as the last remaining skewed, Pratt, through-truss bridge in Michigan. The structure is placed on its abutments at an approximate 45 degree angle because the Flint River and Sheridan Road are nearly parallel at this location. It was also important as part of a statewide road network, especially providing Saginaw County with historic access to the state capital, Lansing, and in serving local farm to market access.

Project Information

Statement:

This documentation was prepared in February 1990 in accordance with procedures as a mitigation measure in anticipation of relocation or removal of the bridge. It was prepared at the direction of the Saginaw County Road Commission.

A.I.C.P.

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1. Layout of the Site

Sheridan Road is a north-south road that crosses the Flint River at a point where the river has a sharp bend to the south and is only about 10 to 15 degrees off the alignment of the road as it approaches the river. There has long been a crossing at this site. An 1877 atlas of the county shows a crossing at this point simply as a straight line across the river. The 1877 atlas also showed now-Sheridan Road to be named "State Road," apparently due to its intercity travel significance. The 1896 atlas shows the road taking an "S" curve with a bridge crossing the river at a sharp angle. This is also the case in a 1916 atlas and is the alignment of the road and bridge today.

The river is from 160 to 200 feet wide in this area with a depth varying from 3 to 7 feet. The river is diked throughout this area to protect the farmland in the area. The bridge deck is normally 12 to 15 feet above the water level. During 100 year probability storm events, it has been calculated that 16,600 cubic feet of water per second would flow past the location. The Flint River is not considered commercially navigable.

Because of the orientation of the road and river, engineers designed the Sheridan Road bridge with a sharp skew relative to the alignment of its abutments. This is the most distinctive feature of the bridge. The bridge itself is a single span without approach structures. The road curves sharply at both approaches to the bridge.

After logging denuded the area in latter part of the nineteenth century, this area has been maintained principally for farmland because of its rich, loamy clay soils. There are several homes near the bridge, but the overall area is almost solely agricultural in land use. There are no known significant historic structures in the vicinity.

2. Dates of Construction and Alterations

The Sheridan Road bridge was constructed in 1923 and has not been significantly altered. It is an exceptionally heavy duty bridge that has not required reinforcement. Even now, it has generous weight restrictions of 20 tons for single-unit vehicles, 32 tons for two-unit vehicles and 42 tons for three-unit vehicles. The bridge has been maintained rather well with surface rust just beginning to occur on the superstructure. The bridge deck consists of 8" thick concrete with asphalt patches over steel stringers. There are no records on file of its replacement. The original bridge railings are intact, but steel guardrail was installed over the railing; the time is not known with certainty, but bridge analyses on file suggest it probably was done in the mid-1970's, or possibly as late as 1984. Overhead flashing lights were installed on the portal, possibly at the same time as the guard rails. Otherwise the bridge has been well-maintained and has not had any structural or visual alteration.

3. Individuals Associated with Bridge

The bridge is not associated with any historically significant individuals. The bridge was designed and fabricated by the Brookville Bridge Co. in Brookville, Ohio. That firm was a medium-sized fabricator at the time, but went out of business circa World War II. Accordingly, no information about the specific designer was available, even after contacts with the local historic society. The local contractor who erected the bridge was a firm known as Denton & Johnson of Saginaw, Michigan. That firm no longer exists in the community.

The Saginaw County Road Commission's local records also do not indicate a specific bridge designer. Records of the bridge were the responsibility of the Michigan Department of Transportation, but a fire in 1950 destroyed many existing records. After a search, it was concluded that the records must have been destroyed in that fire. Except for the skewing, this Pratt, through-truss design is not unusual or ornate, so as to indicate a specific designer.

The Commissioner of the Michigan State Highway Department in 1923 was Frank Rogers. The Saginaw County Road Commission included Chairman John Baird and Commissioners Charles Light and John Malcom. Beyond these political positions, none of these individuals is known to have been identified with historically significant events.

4. Technology Used in Construction

The technology employed was a well-established through-truss that was very common even in the previous century. In fact, this may be one of youngest Pratt-styles in Saginaw County as they were most commonly built in the county at the turn of the century.

The bridge is of steel construction. It is a single span, nine-panel, Pratt, through-truss bridge. It is 176' in length with a horizontal clearance of 18' and a vertical clearance of 16' at the portal. The bridge has concrete, wing-wall abutments.

The major distinctive feature of this bridge is the approximate 45 degree skewing that it was designed to accommodate. Historically approach roads were modified to accommodate a river crossing essentially perpendicular to the watercourse. However, the juxtaposition of the Flint River and Sheridan Road resulted in a sharp angular crossing that was maintained with this bridge. According to a verbal update to a 1985 study conducted for the Michigan Department of Transportation and Michigan Department of State (Bureau of History), the Sheridan Road bridge is the last skewed through-truss bridge still known to exist in the state.

Most local Pratt trusses in Saginaw County are much lighter in design and have only a ton or two load limit. The Sheridan Road bridge, however, is heavy-duty and appears more like a railroad bridge in terms of its massing.

5. Use of the Structure

The bridge is used for vehicular traffic on a county primary road. It is used principally for local Saginaw-area access by automobile, truck, and farm equipment.

The bridge was constructed jointly by the Saginaw County Road Commission and the Michigan State Highway Department as a "State Reward Bridge" because it was a major connector of Saginaw to urban areas in southern Michigan, especially the capital at Lansing. Thus it was designed not only for automobile traffic, but also commercial truck traffic as well as local farm equipment.

In 1961 the State Highway Department modified the M-13 trunkline and, starting about three miles south of the bridge, rerouted the highway westerly one mile to East Road. A new Flint River crossing was built on East Road at that time. Thus, the use of the structure changed significantly from one of statewide access to become one of access to urban Saginaw from southern, rural parts of the county.

6. Significant Events or Figures

The significance of this bridge is the fact that it is the last known bridge in Michigan with a skewed through-truss. Skewed trusses were a rare design because of the complex engineering required.

This bridge does not have any known association with significant historic events or historic figures.

7. Background and Contextual Information

The general background regarding this bridge's development is not known to be particularly significant. The funding and intergovernmental arrangement between the county road commission and state highway department was common for the era. So were the materials and procedures used in its design, fabrication and placement.

Bibliography

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